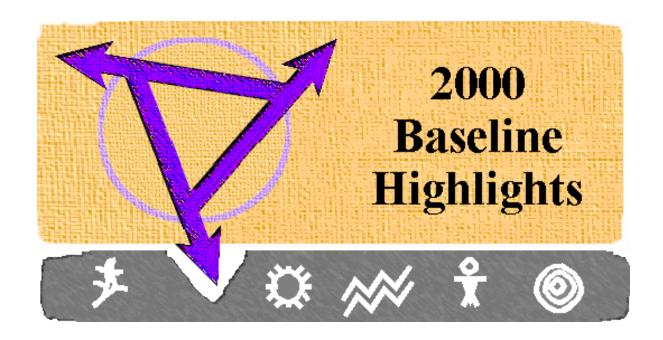
# State of Utah Economic and Demographic Projections: 2000-2030



Demographic and Economic Analysis Governor's Office of Planning and Budget January 2001

## State of Utah Economic and Demographic Projections: 2000-2030

## 2000 Baseline Highlights

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### I. Introduction

This document is intended to highlight the major conclusions published in the larger report that was released in January 2000 entitled, *State of Utah Economic and Demographic Projections: 2000-2030.*The Governor's Office of Planning and Budget (GOPB) publishes these long-term projections biennially. The primary purpose of the projections is to improve decision making and planning coordination in state government by providing a uniform set of population and employment projections. The long-term projections extend through the year 2030, and have been generated by the Utah Process Economic and Demographic model (UPED). The UPED model is an economic base, cohort-survival model that has been used by the State of Utah for many years to project and understand future growth. In addition to the UPED model and the staff efforts of GOPB, these latest projections incorporate the extensive contributions of representatives from the seven Associations of Government (AOG) in Utah. Therefore these projections represent a consensus projection of the future based on both a statewide and local perspective.

This overview of the *State of Utah Economic and Demographic Projections: 2000-2030* presents many of the economic and demographic trends anticipated to impact Utah over the next 30 years, places these findings in a historical context, and makes comparisons with national data and projections. In general, the demographic attributes that have characterized Utah in the past are the relative youthfulness and rapid growth of its population. In the current economic cycle, the state's robust economy has reinforced the latter of these two by attracting a substantial number of in-migrants, and with the exception of a couple of years where out-migration is projected due to slowdowns in specific sectors, such as construction, in-migration should occur on a steady basis for the next several decades. These projections indicate that the distinctive demographic features (i.e. the youthful and rapidly growing population) will continue, as will the relative strength of the economy. Although there will be some convergence with national demographic and economic trends, Utah's population and employment growth rates are projected to continue to out-pace those of the nation for the next three decades.

While the larger projections report presents detailed demographic and employment information to a county level, this review document concentrates on the most basic conclusions as presented at the state level. Demographic projections for the state are presented first. These include discussions of the components of population growth (i.e. natural increase and net migration) and changes in the age structure, especially as measured by dependency ratios.<sup>2</sup> Following this section is an examination of the growth and industrial distribution of projected state level employment. Where appropriate, the state population and employment projections are presented relative to the recent history of the state and also relative to the national data. The final section of this overview is a brief summary of the distribution of population and employment projections within the state. Both rates and amounts of change of total population and total employment are reviewed at a county level.

<sup>&</sup>lt;sup>1</sup> Copies of the detailed report can be obtained for \$15.00 by contacting the Governor's Office of Planning and Budget at (801) 538-1027 (telephone), or (801) 538-1547 (facsimile), or is also available through the State Bulletin Board Service (GOPB On-Line) at 538-3383 or 1-800-882-4638.

<sup>&</sup>lt;sup>2</sup> Natural increase, net migration, and dependency ratios are defined in the sections in which they are discussed.

## **II. State Level Population Projections**

Utah's population, which was 1.73 million in 1990, reached 2.23<sup>3</sup> million in 2000, and is projected to achieve 2.66 million in 2010, 3.18 million in 2020, and 3.68 million in 2030. Although the projected average annual growth rate decelerates from 2.2% per year in the 1990s to 1.5% per year in the 2020s, these growth rates are over double those projected for the nation as a whole.

Table 1: Utah Economic and Demographic Summary

	POPULATION		POPULA	SCHOOL-AGE POPULATION (AGES 5-17)		NON-AG PAYROLL EMPLOYMENT		HOUSEHOLDS		
Year	Total	AARC	Total	AARC	Total	AARC	Total	AARC	Average Size	
1990	1,729,100	N/A	456,783	N/A	724,013	N/A	538,348	N/A	3.16	
1995	1,959,344	2.5%	485,336	1.2%	908,371	4.6%	630,664	3.2%	3.05	
1998	2,082,471	2.1%	485,320	0.0%	1,024,070	4.1%	681,936	2.6%	3.00	
1999	2,121,033	1.9%	483,559	-0.4%	1,050,227	2.6%	697,800	2.3%	2.98	
2000	2,150,205	1.4%	484,305	0.2%	1,074,995	2.4%	710,387	1.8%	2.97	
2001	2,187,276	1.7%	486,511	0.5%	1,102,607	2.6%	725,500	2.1%	2.96	
2002	2,216,175	1.3%	490,578	0.8%	1,115,090	1.1%	737,907	1.7%	2.95	
2003	2,254,500	1.7%	498,321	1.6%	1,134,573	1.7%	753,285	2.1%	2.94	
2004	2,301,301	2.1%	509,237	2.2%	1,157,343	2.0%	771,497	2.4%	2.93	
2005	2,355,120	2.3%	523,315	2.8%	1,185,255	2.4%	792,017	2.7%	2.92	
2006	2,409,802	2.3%	537,825	2.8%	1,213,844	2.4%	812,600	2.6%	2.91	
2007	2,470,278	2.5%	552,893	2.8%	1,244,175	2.5%	835,046	2.8%	2.91	
2008	2,532,770	2.5%	567,730	2.7%	1,275,200	2.5%	858,097	2.8%	2.90	
2009	2,598,568	2.6%	583,356	2.8%	1,307,078	2.5%	882,208	2.8%	2.90	
2010	2,661,902	2.4%	598,775	2.6%	1,337,090	2.3%	905,258	2.6%	2.89	
2011	2,723,333	2.3%	614,935	2.7%	1,366,159	2.2%	927,645	2.5%	2.89	
2012	2,784,211	2.2%	630,848	2.6%	1,394,582	2.1%	949,930	2.4%	2.88	
2013	2,843,786	2.1%	646,079	2.4%	1,422,118	2.0%	971,926	2.3%	2.88	
2014	2,899,066	1.9%	659,974	2.2%	1,448,034	1.8%	992,624	2.1%	2.87	
2015	2,951,006	1.8%	672,057	1.8%	1,472,429	1.7%	1,012,556	2.0%	2.86	
2016	2,999,680	1.6%	682,585	1.6%	1,495,298	1.6%	1,031,698	1.9%	2.86	
2017	3,046,746	1.6%	691,834	1.4%	1,517,238	1.5%	1,050,563	1.8%	2.85	
2018	3,093,597	1.5%	700,467	1.2%	1,538,751	1.4%	1,069,609	1.8%	2.84	
2019	3,138,573	1.5%	708,420	1.1%	1,559,452	1.3%	1,088,203	1.7%	2.83	
2020	3,183,388	1.4%	715,815	1.0%	1,579,919	1.3%	1,106,905	1.7%	2.83	
2021	3,232,739	1.6%	723,738	1.1%	1,601,359	1.4%	1,127,319	1.8%	2.82	
2022	3,280,563	1.5%	731,085	1.0%	1,622,375	1.3%	1,147,374	1.8%	2.81	
2023	3,329,881	1.5%	738,390	1.0%	1,643,713	1.3%	1,168,067	1.8%	2.80	
2024	3,377,841	1.4%	745,189	0.9%	1,664,775	1.3%	1,188,368	1.7%	2.79	
2025	3,428,230	1.5%	752,349	1.0%	1,686,612	1.3%	1,209,420	1.8%	2.78	
2030	3,683,687	1.4%	791,043	1.0%	1,796,816	1.3%	1,313,991	1.7%	2.75	

Source: Governor's Office of Planning and Budget--Demographic and Economic Analysis Section, UPED Model System. This is the provisional 2000 Baseline, revised December 13, 1999. The last year of historical data is 1998 for employment and 1999 for population. Total population is the population in households plus the population in group quarters. Populations are dated July 1.

Does not include Census 2000 data updates.

AARC is the Annual Average Rate of Change.

<sup>&</sup>lt;sup>3</sup> This figure is different than the original projected number, and therefore will not match certain tables and charts in this report due to the fact that this number has been revised to reflect the 2000 Census data that was released on December 28, 2000.

#### A) Natural Increase Accounts for the Largest Portion of Utah's Population Growth

Natural increase (i.e. the amount by which annual births exceed annual deaths) will fuel 81% of Utah's population growth over the projection period. The number of births per year is projected to average about 49,500 in the 2000s, 57,400 in the 2010s, and 65,000 in the 2020s. This compares to projected annual average deaths of about 13,100 in the 2000s, 15,800 in the 2010s, and 19,500 in the 2020s.

**Table 2: Utah Components of Population Change** 

	Beginning			Natural	Residual	Ending	
Year	Population	Births	Deaths	Increase	Migration	Population	AARC
1995	1,915,998	39,064	10,581	28,483	14,864	1,959,344	2.26%
1998	2,048,749	44,248	11,847	32,401	1,319	2,082,471	1.65%
1999	2,082,471	45,434	11,637	33,797	4,765	2,121,033	1.85%
2000	2,121,033	46,358	12,448	33,910	(4,733)	2,150,205	1.38%
2001	2,150,205	46,874	12,496	34,378	2,692	2,187,276	1.72%
2002	2,187,276	47,631	12,575	35,056	(6,158)	2,216,175	1.32%
2003	2,216,175	48,036	12,682	35,354	2,966	2,254,500	1.73%
2004	2,254,500	48,676	12,849	35,827	10,970	2,301,301	2.08%
2005	2,301,301	49,488	13,058	36,430	17,396	2,355,120	2.34%
2006	2,355,120	50,478	13,292	37,186	17,496	2,409,802	2.32%
2007	2,409,802	51,362	13,553	37,809	22,677	2,470,278	2.51%
2008	2,470,278	52,356	13,837	38,519	23,976	2,532,770	2.53%
2009	2,532,770	53,350	14,127	39,223	26,579	2,598,568	2.60%
2010	2,598,568	54,345	14,441	39,904	23,425	2,661,902	2.44%
2011	2,661,902	55,181	14,765	40,416	21,024	2,723,333	2.31%
2012	2,723,333	55,920	15,076	40,844	20,029	2,784,211	2.24%
2013	2,784,211	56,655	15,368	41,287	18,293	2,843,786	2.14%
2014	2,843,786	57,344	15,662	41,682	13,608	2,899,066	1.94%
2015	2,899,066	57,925	15,968	41,957	9,979	2,951,006	1.79%
2016	2,951,006	58,441	16,278	42,163	6,503	2,999,680	1.65%
2017	2,999,680	58,938	16,587	42,351	4,711	3,046,746	1.57%
2018	3,046,746	59,442	16,860	42,582	4,274	3,093,597	1.54%
2019	3,093,597	60,036	17,184	42,852	2,124	3,138,573	1.45%
2020	3,138,573	60,666	17,512	43,154	1,662	3,183,388	1.43%
2021	3,183,388	61,349	17,897	43,452	5,894	3,232,739	1.55%
2022	3,232,739	62,281	18,311	43,970	3,849	3,280,563	1.48%
2023	3,280,563	63,217	18,724	44,493	4,812	3,329,881	1.50%
2024	3,329,881	64,255	19,166	45,089	2,875	3,377,841	1.44%
2025	3,377,841	65,289	19,633	45,656	4,735	3,428,230	1.49%
2030	3,632,794	71,067	22,475	48,592	2,303	3,683,687	1.40%

Source: Governor's Office of Planning and Budget--Demographic and Economic Analysis Section UPED Model System.

Populations are dated July 1.

Births and deaths are to the resident population as defined by the UPED Model.

AARC is the annual average rate of change.

This is the provisional 2000 Baseline, revised December 13, 1999; does not include Census 2000 data updates.

#### B) Net In-Migration Makes Up the Balance of the Population Growth

Net migration is gross in-migration less gross out-migration. Positive net in-migration occurs when more people move into the state than move out of the state for a given period of time. Net in-migration is projected to occur in the State of Utah over the next three decades. Approximately 280,000 of the 1.5 million population increase over the thirty-year projection period can be attributed to net in-migration, meaning inmigration accounts for about 19% of the projected increase.

#### C) The Rapid Rate of Natural Increase Occurs Primarily Because of Utah's Young Population and High **Fertility Rates**

A significant amount of attention has been given to the trends of the growing school-age population in Utah, where the grandchildren of the baby boomers are entering the school-age years (ages 5 to 17). The State of Utah is projecting an increase of approximately 100,000 people in the school-age population over the next decade. It is important to note that this increase is not mainly fertility-driven or migration-driven, but rather the increase is largely due to the fact that such a large number of women are in their childbearing years. The Utah population is young relative to the nation and, in consequence, a greater proportion of the female population is in childbearing years compared to the nation. Therefore, even if Utah's fertility rate (children per woman) were equal to that of the nation, more children would be born in Utah relative to the size of the population. However, in addition to the young population, Utah women have higher fertility rates, ranking Utah first among states nationwide. For the projection period, Utah's fertility rate is projected to remain constant at 2.7 children per woman of childbearing age. The national projections have the fertility rate increasing from 2.1 during the next two decades to 2.2 during the last decade of the projection period. Further contributing to the rapid rate of natural increase is the fact that Utahns tend to have longer life expectancies (i.e. mortality rates at any given age are lower) compared to the nation.

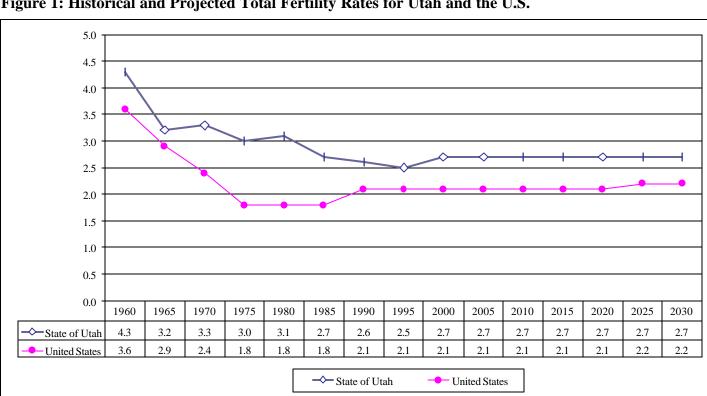


Figure 1: Historical and Projected Total Fertility Rates for Utah and the U.S.

Source: 2000 Baseline Projections, GOPB; UPED Model System

Figure 2: Historical and Projected Life Expectancies for Utah and the U.S.

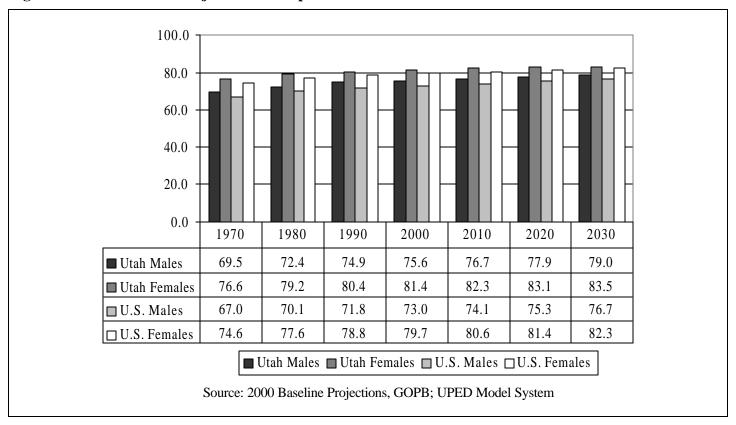
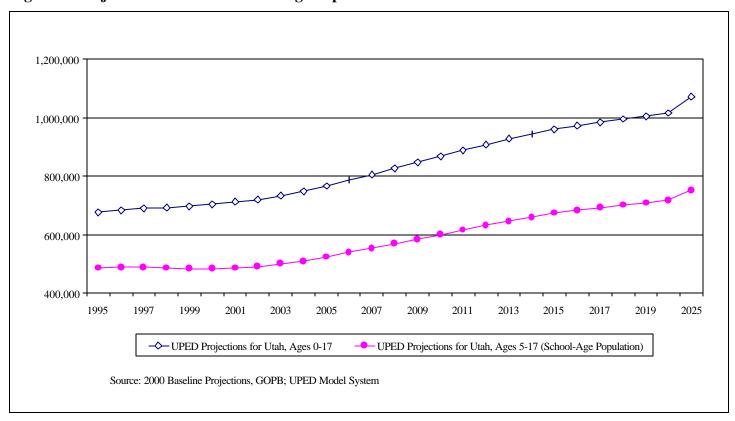


Figure 3: Projections for Utah's School-Age Population



**Table 3: Utah Population Projections by Selected Age Groups** 

Age	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
0-4	189,962	172,252	175,762	180,013	183,632	187,197	190,253	194,184	199,801	206,004	213,130
5-17	350,143	456,783	466,478	472,890	477,708	483,136	485,336	486,846	488,378	485,320	483,559
18-29	351,391	337,682	346,478	356,225	366,199	379,755	394,030	409,045	425,018	438,188	450,943
30-39	184,866	261,192	271,417	279,102	285,070	290,099	292,179	292,899	293,866	291,716	291,912
40-64	275,455	345,459	360,872	375,187	391,550	409,655	427,823	446,178	465,857	483,434	501,651
65+	109,220	149,482	154,500	158,535	162,290	166,156	169,723	173,246	175,829	177,809	179,838
15-44	678,160	789,887	822,144	849,906	876,666	906,916	932,674	956,534	978,344	990,538	1,002,238
16-64	864,989	1,003,330	1,040,496	1,075,784	1,113,036	1,154,285	1,190,639	1,227,395	1,266,165	1,291,657	1,320,871
60+	155,480	201,994	207,632	211,622	215,535	219,497	223,879	227,990	231,890	235,044	238,700
Total	1,461,037	1,722,850	1,775,507	1,821,952	1,866,449	1,915,998	1,959,344	2,002,398	2,048,749	2,082,471	2,121,033
Median Age	24	26	26	26	27	27	27	27	27	27	27
Age	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
0-4	219,157	225,285	229,555	233,897	238,158	242,697	247,309	252,201	257,302	262,631	267,670
5-17	484,305	486,511	490,578	498,321	509,237	523,315	537,825	552,893	567,730	583,356	598,775
18-29	453,208	457,065	461,101	466,776	474,320	480,871	486,361	491,507	496,962	502,528	505,449
30-39	293,556	297,957	297,625	298,907	303,056	310,496	320,067	333,683	348,305	362,882	374,877
40-64	518,174	536,388	551,380	568,156	584,955	602,234	618,146	635,440	650,907	668,418	689,711
65+	181,805	184,070	185,936	188,443	191,575	195,507	200,094	204,554	211,564	218,753	225,420
15-44	1,006,342	1,014,276	1,015,524	1,021,764	1,034,093	1,050,205	1,065,905	1,086,620	1,106,894	1,130,497	1,153,888
16-64	1,340,543	1,364,820	1,382,442	1,404,801	1,432,766	1,465,867	1,499,482	1,537,507	1,574,281	1,612,492	1,649,561
60+	241,878	246,118	249,634	256,207	263,242	270,402	277,151	288,716	301,287	313,834	327,277
Total	2,150,205	2,187,276	2,216,175	2,254,500	2,301,301	2,355,120	2,409,802	2,470,278	2,532,770	2,598,568	2,661,902
Median Age	28	28	28	28	28	28	28	28	29	29	29
Age	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2030
0-4	272,262	276,559	280,503	283,886	286,733	289,193	291,464	293,712	295,899	298,285	345,067
5-17	614,935	630,848	646,079	659,974	672,057	682,585	691,834	700,467	708,420	715,815	791,043
18-29	506,726	511,349	514,959	519,775	525,706	532,237	540,854	550,294	558,990	567,638	675,761
30-39	384,583	395,881	407,906	417,608	424,598	429,145	429,189	428,004	426,393	423,398	445,704
40-64	713,305	727,755	741,306	754,148	766,716	779,234	794,431	808,516	822,141	836,659	943,570
65+	231,522	241,819	253,033	263,675	275,196	287,286	298,974	312,604	326,730	341,593	482,542
15-44	1,177,915	1,203,493	1,229,175	1,252,060	1,269,585	1,283,251	1,301,224	1,319,123	1,336,476	1,352,800	1,500,847
16-64	1,686,411	1,719,582	1,752,233	1,783,111	1,811,644	1,837,679	1,863,240	1,887,149	1,909,276	1,930,706	2,180,637
60+	341,366	355,130	370,886	387,047	403,887	420,824	437,537	454,718	471,315	488,508	631,527
Total	2,723,333	2,784,211	2,843,786	2,899,066	2,951,006	2,999,680	3,046,746	3,093,597	3,138,573	3,183,388	3,683,687
Median Age	29	29	30	30	30	30	30	30	30	30	31

Source: Governor's Office of Planning and Budget--Demographic and Economic Analysis Section, UPED Model System.

This is the provisional 2000 Baseline, revised December 13, 1999; does not include Census 2000 data updates.

1980 and 1990 populations are April 1 U.S. Census MARS populations; all others are July 1 populations.

#### D) Sustained In-Migration to the State Occurs Because of the Economy's Job Creation

Approximately 280,000 of the 1.5 million population increase over the thirty-year projection period, or 19% of the projected increase, can be attributed to net in-migration. Net in-migration occurs when 1) there is enough job creation to accommodate residents who are net new entrants to the labor force, and 2) there is additional job creation such that in-migration is necessary to satisfy labor demand within the state.<sup>4</sup> Net in-migration is projected to be continuous in Utah over the next three decades because job creation is also projected to be relatively rapid over the next three decades.

#### E) Utah's Age Structure Shifts Upward, but Remains Younger than the Nation

The median age is the age that divides the age distribution of a given population into two equal groups, one that is younger than the median and one that is older than the median age. Utah's median age is projected to increase from 28 years in 2000 to 31 years by the year 2030. Over the same period, the U.S. median age is projected to increase from 36 to 39. The increasing median ages in both cases are largely the result of the aging of the baby boomers over time. The difference in median ages reflects the cumulative effect of Utah's higher fertility rate and the interaction of this high fertility rate with the younger population profile of the state. As Utah women in child-bearing years continue to have more children on average than women nationally, the younger age groups continue to be relatively larger as a portion of the population than is the case for the U.S. as a whole.

#### F) Utah's Dependency Ratio

One summary measure of a population's age structure is the dependency ratio. This ratio is defined as the number of non-working age persons (younger than 18 and 65 years and over) per 100 working age persons (ages 18 through 64). Utah's dependency ratio has historically been significantly higher than that of the nation. This has occurred because the preschool and school-age portions of Utah's population have been large relative to its total population. In 1970, Utah's dependency ratio was 90 while the nation's was 79. In 2000, the dependency ratio for the state fell to 70 while the nation's fell to 63. This decline occurred, in both cases, primarily because the baby boomers reached working-age.

Utah's age structure is projected to continue to be characterized by a relatively high dependency ratio. However, the state's dependency ratio is projected to converge with that of the nation over the projection period. The projected dependency ratio for Utah in 2030 is 78, while that of the nation is also 78. This tendency to converge is primarily because the working-age proportion of Utah's population is projected to increase while that of the nation will decline. The aging of the baby boomers affects the age structure of both Utah and the U.S. However, the aging and retirement of the baby boomers will have a larger effect on the national dependency ratio because the younger age groups in Utah's population will increase more rapidly than those of the nation throughout the entire period.

<sup>&</sup>lt;sup>4</sup> Openings in the labor market are also created when residents leave the labor force.

Figure 4: Historical and Projected Median Ages for Utah and the U.S.

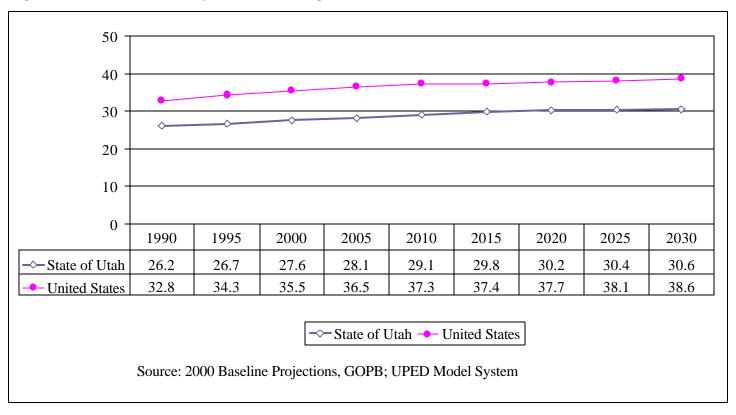


Figure 5: Historical and Projected Dependency Ratios for Utah and the U.S.

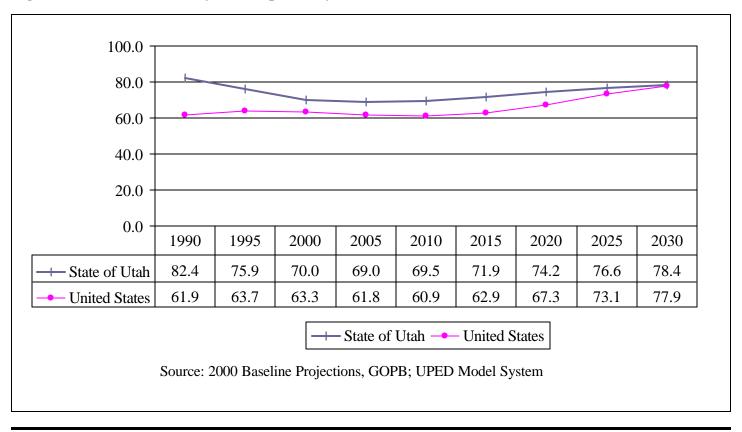


Table 4: Utah Populations by Selected Age Groups as a Percent of Total

Age	1980	1990	2000	2005	2010	2015	2020	2030
0-4	13.0%	10.0%	10.2%	10.3%	10.1%	9.7%	9.4%	9.4%
5-17	24.0%	26.5%	22.5%	22.2%	22.5%	22.8%	22.5%	21.5%
18-29	24.1%	19.6%	21.1%	20.4%	19.0%	17.8%	17.8%	18.3%
30-39	12.7%	15.2%	13.7%	13.2%	14.1%	14.4%	13.3%	12.1%
40-64	18.9%	20.1%	24.1%	25.6%	25.9%	26.0%	26.3%	25.6%
65+	7.5%	8.7%	8.5%	8.3%	8.5%	9.3%	10.7%	13.1%
15-44	46.4%	45.8%	46.8%	44.6%	43.3%	43.0%	42.5%	40.7%
16 - 64	59.2%	58.2%	62.3%	62.2%	62.0%	61.4%	60.6%	59.2%
60+	10.6%	11.7%	11.2%	11.5%	12.3%	13.7%	15.3%	17.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Governor's Office of Planning and Budget--Demographic and Economic Analysis Section, UPED Model System. This is the provisional 2000 Baseline, revised December 13, 1999.

1980 and 1990 populations are April 1 U.S. Census MARS populations; all others are July 1 populations.

**Table 5: Utah Dependency Ratios** 

	1980	1990	2000	2005	2010	2015	2020	2030
Dependency Ratio	80	82	70	69	70	72	74	78
Pop 0-4 per 100 Pop age 18-64	23	18	17	17	17	17	16	17
Pop 5-17 per 100 Pop age 18-64	43	48	38	38	38	39	39	38
Pop 65+ per 100 Pop age 18-64	13	16	14	14	14	16	19	23

Source: Governor's Office of Planning and Budget--Demographic and Economic Analysis Section, UPED Model System. This is the provisional 2000 Baseline, revised December 13, 1999.

1980 and 1990 populations are April 1 U.S. Census MARS populations; all others are July 1 populations.

The dependency ratio is defined as the population ages 0-17 and 65 plus per 100 persons ages 18-64.

## III. State Level Employment Projections

Utah's non-farm payroll employment is projected to increase from 1,075,000 in 2000 to 1,797,000 in 2030. This is an increase of 722,000 jobs over the projection period. The State of Utah's average annual growth rate for the projection period is 2.3%, while the corresponding growth rates for the U.S. are projected to be about half that of Utah. In the present economic cycle, western states have experienced very strong employment growth. Utah is currently among the top job growth states in the nation. However, the reasons for Utah's strong economic performance go beyond the effects of the short-run cycle. Because of the structural adjustments and competitive imperatives that characterize the dynamics of the global economy, Utah is expected to continue to benefit from the comparative advantages it currently experiences well into the next century. Among the characteristics that bode well for Utah's long-term competitive advantage are its probusiness regulatory environment; moderate business taxes; a balanced, comprehensive tax system; a solid utility, communications, education, and transportation infrastructure; a youthful and educated labor force; good universities; healthy lifestyles; inexpensive health insurance and worker's compensation; and a strong work ethic. The pace of job creation has slowed down from the boom conditions in the state of the 1990s, however Utah's economy will continue to expand more rapidly than that of the nation throughout the projection period.

#### A) Employment Growth in Utah is Projected for Nearly Every Major Industry

Employment growth is projected for every major industry<sup>5</sup> except agriculture and mining in Utah over the next three decades. Further, average annual growth in every industry except mining and agriculture is projected to be higher than for those same industries at the national level. National projections indicate that three of the ten major industries will experience net declines in employment levels. The three industries are manufacturing, mining, and agriculture.

Of the ten major industries, construction is projected to have the highest average annual growth rate in the State of Utah over the next three decades. The projected average annual rate of change for 1990 through 2030 for Utah's construction sector is 3.3%. Other major industries in Utah projected to have strong employment growth (in excess of 2.0% per year on average) for the 1990 to 2030 period are TCPU, trade, FIRE, services, and non-farm proprietors. The slow growth industries in Utah will be manufacturing and government.

#### B) Services, Non-farm Proprietors, and Trade are the Largest Industries in Utah

Services, non-farm proprietors, and trade are currently the three largest industries (in terms of employment) in Utah. The number of service jobs in Utah is expected to more than double, increasing from 308,100 in 2000 to 629,300 in 2030, an increase of 321,200 jobs. The number of non-farm proprietor jobs and new trade sector jobs are projected to increase significantly over the projection period as well. These three industries combined are projected to create 74% of the employment growth in the State of Utah over the next three decades.

<sup>&</sup>lt;sup>5</sup> There are ten major industries in this classification scheme. TCPU is transportation, communications, and public utilities. FIRE is finance, insurance, and real estate. Non-farm proprietors are non-farm sole proprietorships (i.e., an unincorporated business owned by a single individual) and partnerships (i.e., an unincorporated business association of two or more partners) and tax-exempt cooperatives (i.e., an unincorporated nonprofit business organization owned collectively by its members). The remaining industries are: agriculture, mining, construction, manufacturing, trade, services, and government.

Figure 6: Nonagricultural Payroll Employment Growth Rates Projected for Major Industries

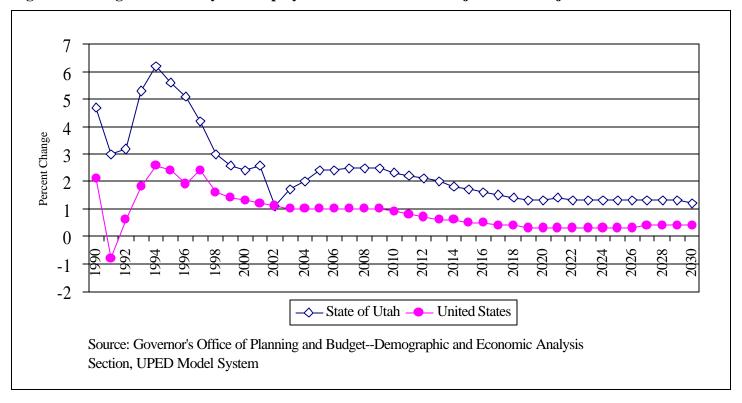


Table 6: Utah Employment Projections by Major Industry

Industry	1980	1990	1995	1998	1999	2000	2001	2002
Agriculture (4)	19,660	19,146	17,206	19,293	19,965	19,927	19,888	19,837
Mining	18,502	8,604	8,114	8,045	7,702	7,706	7,629	7,564
Construction	31,548	27,927	54,793	68,261	73,031	73,030	71,864	64,610
Manufacturing	87,707	107,102	123,865	133,508	132,222	133,977	135,187	135,946
TCPU (1)	34,127	42,286	51,496	58,453	59,192	60,596	62,287	63,395
Trade	128,692	172,394	220,026	244,117	248,993	253,493	258,033	261,114
FIRE (2)	25,768	34,133	47,678	55,257	56,999	58,492	59,844	60,634
Services (3)	105,839	185,865	243,716	285,618	296,851	308,096	323,161	333,937
Government	124,929	150,557	163,669	175,640	180,107	184,510	189,560	192,867
Non-farm Proprietors (4)	90,616	154,703	201,050	234,957	244,469	253,965	264,011	271,858
TOTAL EMPLOYMENT (5)	667,388	902,717	1,131,613	1,283,149	1,319,531	1,353,792	1,391,464	1,411,76
Non-Ag Payroll Emp (6)	551,833	724,013	908,371	1,024,070	1,050,227	1,074,995	1,102,607	1,115,09
Industry	2003	2004	2005	2010	2015	2020	2025	2030
Agriculture (4)	19,775	19,704	19,588	19,092	18,422	17,666	16,715	16,365
Mining	7,493	7,427	7,474	7,391	7,262	6,984	7,059	5,444
Construction	61,411	59,830	61,944	73,847	81,470	88,278	95,031	101,947
Manufacturing	137,351	138,376	139,586	146,692	154,401	162,372	171,261	180,849
TCPU (1)	64,274	65,444	66,723	73,543	80,245	86,446	93,083	99,807
Trade	264,570	267,972	273,042	302,246	329,242	351,722	375,486	402,901
FIRE (2)	61,548	62,382	63,603	70,504	76,841	81,816	86,880	92,480
Services (3)	346,472	361,174	374,069	440,434	499,361	544,783	587,882	629,32
Government	196,459	199,760	203,845	227,609	248,849	262,737	275,096	289,366
Non-farm Proprietors (4)	281,015	289,929	298,437	342,786	382,080	412,882	442,409	472,333
TOTAL EMPLOYMENT (5)	1,440,368	1,471,998	1,508,311	1,704,144	1,878,173	2,015,686	2,150,902	2,290,81
Non-Ag Payroll Emp (6)	1,134,573	1,157,343	1,185,255	1,337,090	1,472,429	1,579,919	1,686,612	1,796,81

Source: Governor's Office of Planning and Budget--Demographic and Economic Analysis Section, UPED Model System.

This is the provisional 2000 Baseline, revised December 13, 1999.

 $<sup>(1)\</sup> Transportation,\ Communications\ and\ Public\ Utilities$ 

<sup>(2)</sup> Finance, Insurance and Real Estate

<sup>(3)</sup> Includes Private Household and Agricultural Services employment (SICs 88, 07, 08, and 09)

<sup>(4)</sup> U.S. Bureau of Economic Analysis definition

<sup>(5)</sup> Totals may not add due to rounding

<sup>(6)</sup> Excludes Agriculture, Private Household, and Non-Farm Proprietor employment

#### C) Diversification and a Shift in Industrial Composition

The State of Utah is becoming more economically diverse, and hence more like the economic structure of the United States, as measured by the Hachman Index.<sup>6</sup> There are specific counties that are very different from the U.S., and this is not necessarily bad. For example, if the mining industry moved out of Carbon County, the economic structure of Carbon County would score higher on the Hachman Index, meaning it would now be more similar to the economic structure of the nation, however the economy of Carbon County would not be better off.

Although the direction of shifts in composition of employment by industry are projected to be similar for Utah and the U.S., the projected 2000 and 2030 distributions of employment by industry will be different. In 2000 the most significant differences between the industrial composition of Utah and the U.S. were the relatively larger concentration of employment in the non-farm proprietors and the construction sectors, and relatively smaller concentration of employment in the services and manufacturing sectors for Utah when compared to the nation. Utah also had a slightly greater share of employment in mining and TCPU, and a somewhat smaller proportion in the other four major industries than the nation (i.e., agriculture, trade, FIRE, and government).

Table 7: Differences Between the Employment Distributions of Utah and the U.S.\*

Industry	2000	2030
Agriculture	-0.3%	-0.5%
Mining	0.2%	-0.1%
Construction	1.6%	0.7%
Manufacturing	-1.6%	-1.3%
TCPU	0.4%	0.4%
Trade	-0.1%	-1.0%
FIRE	-0.3%	-0.6%
Services	-3.0%	-1.9%
Government	-0.1%	-0.3%
Non-Farm Proprietors	3.3%	4.5%

\*This is computed by taking the difference between the Utah share of employment in a given industry and that of the nation. This is done for 2000 and for 2030. This shows, for example, that Utah has a larger share of employment in mining in 2000 and a smaller share in 2030 compared to the nation.

<sup>&</sup>lt;sup>6</sup> This is an index of similarity that measures how closely the employment distribution of the subject region resembles that of the reference region. The value of the index is between zero and one. As the value of the index approaches one, this means that the subject region's employment distribution among industries is more similar to that of the reference region. If the reference region is the nation, and, given the assumption that the nation's economy is diversified, a larger value of the Hachman Index relative to the nation means that a subject region is more diversified. In 1977 the Hachman Index for the State of Utah at the major industry level was .93. It is .98 in 2000, and is projected to remain at .98 to 2030.

The most significant differences between the employment shares for the projected industrial composition in 2030 of Utah and the U.S. are the relatively larger concentrations of Utah's employment in the non-farm proprietors sector, and the relatively smaller share of Utah's employment in services, manufacturing, and trade. Utah will have a slightly larger share of employment in construction and TCPU, and a somewhat smaller share of employment in agriculture, mining, FIRE, and government when compared to the nation. This is the combined result of the differential shifts in industrial composition between Utah and the U.S. in the projection period, and the initial differences in the composition of employment between the two.

Table 8: Location Quotients and Hachman Index for the State of Utah

Industry	1980	1990	2000	2010	2020	2030
Agriculture	0.89	0.94	0.82	0.73	0.65	0.59
Mining	3.05	1.86	1.6	1.45	1.29	0.97
Construction	1.2	0.81	1.41	1.14	1.16	1.18
Manufacturing	0.73	0.86	0.86	0.84	0.84	0.86
TCPU	1.13	1.12	1.1	1.07	1.08	1.1
Trade	1.06	1.01	1	0.95	0.94	0.95
FIRE	0.82	0.77	0.93	0.9	0.89	0.88
Services	0.88	0.93	0.88	0.94	0.94	0.93
Government	1.14	1.09	0.99	1	1	0.98
Non-Farm Proprietors	1.12	1.2	1.21	1.27	1.28	1.28
Hachman Index	0.94	0.98	0.98	0.98	0.98	0.98
	•					

<sup>\*</sup>Location Quotients are measures of relative shares. The share of a given industry in the subject area (Utah) is compared to that of the reference region (United States). A location greater than 1 indicates specialization in a subject region relative to the reference region.

Source: 2000 Baseline Projections, GOPB, UPED Model System.

<sup>\*\*</sup>The Hachman Index measures how closely the employment distribution of the subject region (Utah) resembles that of the reference region (United States). As the value of the index approaches one, this means that the subject region's employment distribution among industries is more similar to that of the reference region.

**Table 9: Hachman Index by Individual County in the State of Utah** 

County	1980	1990	2000	2010	2020	2030
Beaver	0.48	0.46	0.29	0.29	0.33	0.37
Box Elder	0.69	0.53	0.55	0.59	0.6	0.58
Cache	0.84	0.81	0.86	0.86	0.86	0.85
Carbon	0.15	0.2	0.3	0.34	0.38	0.38
Daggett	0.35	0.49	0.56	0.59	0.6	0.62
Davis	0.73	0.83	0.88	0.89	0.89	0.89
Duchesne	0.21	0.33	0.35	0.52	0.57	0.59
Emery	0.06	0.1	0.12	0.13	0.15	0.15
Garfield	0.4	0.55	0.64	0.71	0.76	0.79
Grand	0.22	0.6	0.81	0.81	0.81	0.81
Iron	0.81	0.84	0.91	0.92	0.92	0.91
Juab	0.65	0.56	0.77	0.81	0.83	0.85
Kane	0.7	0.75	0.88	0.84	0.87	0.88
Millard	0.31	0.4	0.41	0.45	0.46	0.47
Morgan	0.45	0.32	0.39	0.45	0.48	0.5
Piute	0.24	0.13	0.15	0.19	0.21	0.22
Rich	0.22	0.18	0.25	0.26	0.28	0.3
Salt Lake	0.93	0.96	0.95	0.96	0.96	0.96
San Juan	0.1	0.33	0.4	0.24	0.43	0.54
Sanpete	0.47	0.48	0.63	0.66	0.68	0.7
Sevier	0.6	0.62	0.68	0.67	0.66	0.65
Summit	0.41	0.8	0.8	0.79	0.79	0.79
Tooele	0.42	0.53	0.8	0.82	0.82	0.82
Uintah	0.21	0.25	0.29	0.52	0.61	0.63
Utah	0.94	0.92	0.93	0.94	0.94	0.94
Wasatch	0.59	0.68	0.75	0.76	0.77	0.77
Washington	0.81	0.88	0.84	0.84	0.85	0.85
Wayne	0.3	0.27	0.47	0.58	0.64	0.69
Weber	0.93	0.94	0.96	0.97	0.97	0.97

<sup>\*</sup>The subject region is each individual county, and the reference region is the United States.

Source: 2000 Baseline Projections, GOPB, UPED Model System.

## IV. County Level Population and Employment Projections

A) In Absolute Numbers, Population Growth is Primarily Concentrated Along the Wasatch Front About 1.1 million (or about 73%) of the projected 1.5 million population increase projected for the state between 2000 and 2030 will be concentrated in the counties of Salt Lake, Utah, Davis, and Weber. This is slightly less than the 76% share of the state's population in these counties in 2000. Therefore, the projected share of the state's population in these four counties in 2030 is expected to decline slightly to 75%.

**B)** Washington, Cache, and Summit County Populations are Projected to Increase Significantly Washington County is projected to account for 9% of the state's total population increase from 2000 to 2030. Its population is projected to increase from 83,781 in 2000 to 218,198 in 2030.

Cache County is projected to account for 3.6% of the state's total population increase from 2000 to 2030. Its population is projected to increase by 54,720 from 88,320 in 2000 to 143,040 in 2030.

Summit County is projected to account for 2.2% of the state's total population increase from 2000 to 2030. Its population is projected to increase by 33,757 from 27,095 in 2000 to 60,852 in 2030.

4,000,000 3,500,000 3.000.000 2,500,000 2,000,000 1.500.000 1,000,000 500,000 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 108,750 163,984 193,189 215,926 50,800 55,100 63,300 72,300 93,350 133,246 - Bear River MCD 297,700 412,700 586,300 713,450 949,150 1,107,250 1,319,638 1,606,875 1,917,301 2,176,633 Wasatch Front MCD 402,419 Mountainland MCD 71,300 95,200 119,300 151,150 239,050 291,800 524,651 632,920 769,392 76,693 49,800 45,100 37,200 35,400 47,600 52,200 66,121 85,395 92,385 Central MCD 31,800 35,650 56,050 83,900 133,298 185,326 241,521 30,400 30,700 310,730 Southwest MCD 19,300 18,800 20,100 20,850 34,150 35,500 40,378 43,861 48,172 50,038 Uintah Basin MCD Southeast MCD 32,500 38,300 42,000 37,200 54,650 49,700 55,105 60,512 64,890 68,583 Bear River MCD Wasatch Front MCD — Mountainland MCD — Central MCD Southwest MCD - Uintah Basin MCD - Southeast MCD — State of Utah Source: 2000 Baseline Projections, GOPB, does not include Census 2000 data updates; UPED Model System

Figure 7: Population Estimates and Projections by Multi-County District

**Table 10: Population Projections by County and Multi-County District** 

MCD/County	1980	1990	2000	2005	2010	2015	2020	2030	AARC 1990- 2030
BEAR RIVER	92,498	108,393	133,246	146,692	163,984	180,460	193,189	215,926	1.74%
Box Elder	33,222	36,485	43,083	47,896	53,855	59,137	63,209	70,755	1.67%
Cache	57,176	70,183	88,320	96,904	108,150	119,272	127,896	143,040	1.80%
Rich	2,100	1,725	1,843	1,892	1,979	2,051	2,084	2,131	0.53%
WASATCH FRONT	941,172	1,104,356	1,319,638	1,427,643	1,606,875	1,779,180	1,917,301	2,176,633	1.71%
Davis	146,540	187,941	240,460	261,297	292,173	322,395	346,203	392,003	1.85%
Morgan	4,917	5,528	7,292	7,856	8,829	9,810	10,659	12,435	2.05%
Salt Lake	619,066	725,956	848,083	914,190	1,028,508	1,136,706	1,223,218	1,383,907	1.63%
Tooele	26,033	26,601	36,816	42,450	50,333	58,487	65,852	80,938	2.82%
Weber	144,616	158,330	186,987	201,850	227,032	251,782	271,369	307,350	1.67%
MOUNTAINLAND	236,827	289,197	402,419	454,011	524,651	584,866	632,920	769,392	2.48%
Summit	10,198	15,518	27,095	29,176	35,202	42,009	48,207	60,852	3.48%
Utah	218,106	263,590	361,213	408,220	469,691	520,353	559,907	677,304	2.39%
Wasatch	8,523	10,089	14,111	16,615	19,758	22,504	24,806	31,236	2.87%
CENTRAL	47,087	52,294	66,121	71,338	76,693	82,101	85,395	92,385	1.43%
Juab	5,530	5,817	8,332	9,435	10,572	11,732	12,589	14,338	2.28%
Millard	8,970	11,333	12,047	12,539	13,057	13,576	13,747	14,167	0.56%
Piute	1,329	1,277	1,669	1,789	1,889	1,973	2,009	2,062	1.21%
Sanpete	14,620	16,259	22,296	23,920	25,571	27,230	28,177	30,242	1.56%
Sevier	14,727	15,431	19,160	20,635	22,155	23,686	24,598	26,498	1.36%
Wayne	1,911	2,177	2,617	3,020	3,449	3,904	4,275	5,078	2.14%
SOUTHWEST	55,489	83,263	133,298	156,056	185,326	214,415	241,521	310,730	3.35%
Beaver	4,378	4,765	6,006	6,938	7,558	8,089	8,477	9,653	1.78%
Garfield	3,673	3,980	4,609	5,030	5,602	6,123	6,563	7,764	1.68%
Iron	17,349	20,789	32,564	36,911	41,656	46,076	49,892	60,191	2.69%
Kane	4,024	5,169	6,338	6,730	8,238	9,757	11,243	14,924	2.69%
Washington	26,065	48,560	83,781	100,447	122,272	144,370	165,346	218,198	3.83%
UINTAH BASIN	33,840	35,546	40,378	41,735	43,861	46,698	48,172	50,038	0.86%
Daggett	769	690	742	770	813	869	898	937	0.77%
Duchesne	12,565	12,645	14,518	15,253	16,247	17,492	18,216	19,212	1.05%
Uintah	20,506	22,211	25,118	25,712	26,801	28,337	29,058	29,889	0.75%
SOUTHEAST	54,124	49,801	55,105	57,645	60,512	63,286	64,890	68,583	0.80%
Carbon	22,179	20,228	21,876	22,951	24,091	25,245	25,732	27,248	0.75%
Emery	11,451	10,332	10,395	10,772	11,243	11,684	12,322	12,984	0.57%
Grand	8,241	6,620	9,106	9,349	9,665	9,954	9,989	10,288	1.11%
San Juan	12,253	12,621	13,728	14,573	15,513	16,403	16,847	18,063	0.90%
STATE OF UTAH	1,461,037	1,722,850	2,150,205	2,355,120	2,661,902	2,951,006	3,183,388	3,683,687	1.92%

Sources: U.S. Bureau of the Census; UPEC; 2000 Baseline, GOPB, does not include Census 2000 data updates; UPED Model System

## C) Counties With Population Growth Rates in Excess of the State Population Growth Rate Will Gain in Their Share of the State's Population

The counties with the projected highest annual average rates of growth over the 1990 to 2030 period are Washington (3.8%), Summit (3.5%), Wasatch (2.9%), Tooele (2.8%), Iron (2.7%), Kane (2.7%), Utah (2.4%), Juab (2.3%), Wayne (2.1%), and Morgan (2.1%). These growth rates are well in excess of the state's average annual rate of growth of 1.9% for the 1990 to 2030 period. Thus, these counties will gain in terms of their shares of the state's total population.

**D)** In Absolute Numbers, Employment Growth is Primarily Concentrated Along the Wasatch Front Of the 937,000 net employment creation projected for the state from 2000 to 2030, 75%, or 706,400 jobs, are expected to be within Salt Lake, Utah, Davis, and Weber Counties. However, of these counties, only Utah is projected to have an average annual growth rate of employment in excess of that of the state as a whole.

#### E) Counties With the Highest Rates of Projected Employment Growth

The counties with the most rapid rates of projected employment growth are also those counties with rapid rates of projected population growth. Rapid employment growth makes it possible for a region to support more people. Population growth reinforces economic expansion as well. The counties with the most rapid rates of projected employment growth from 1990 to 2030 are Washington (4.55%), Kane (3.72%), Summit (3.37%), Wasatch (3.31%), and Iron (3.25%).

#### **F) Additional Information**

For additional information on historical and projected economic and demographic data, including methods, procedures, and assumptions, visit the web site: <a href="http://www.state.ut.us/dea">http://www.state.ut.us/dea</a>.